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10/679,541	10/06/2003	Rick Chin	6175-059	3306

7590 07/03/2006	EXAMINER
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ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/679,541	CHIN ET AL.
	Examiner	Art Unit	
	Eric Woods	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 February 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *7-11 and 29-46* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *7-11,29-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/15/2006 has been entered.

Response to Arguments

Applicant's arguments, see Remarks pages 1-11 and amendments to the claims, filed with the RCE, with respect to the rejection(s) of claim(s) 7-11 and 29-46 under 35 USC 103(a) have been fully considered and are persuasive.

The rejection of claims 29-35 under 35 USC 112, second paragraph, stands withdrawn in view of applicant's amendment to correct the deficiency of the independent claim in that complex.

The rejections of claims 8-11 and 29-46 under 35 USC 103(a) stands withdrawn in view of applicant's amendments.

However, upon further consideration, a new ground(s) of rejection is made in view of various references as below.

In the interests of removing issues concerning compliance with 37 CFR 1.104 on the part of the office, where examiner uses grouping analysis against a plurality of independent claims, specific sections will be added addressing each difference in the

various claims and concise explanations of any required modification of any

incorporated rejections (e.g. master claim) will be added that will leave the record clear.

The arguments with respect to *Festo* are moot in any case since the case is no

longer under final rejection and prosecution has been reopened.

Examiner disagrees with applicant's characterization of the *Venner* case and its

applicability to the instant case. Specifically, examiner clarifies again that the

automation in question is with regards to the fact that the **computer** forms the second

drawing layout by itself, where in the past the **user** has done so by taking an action that

causes the computer to apply the transformation matrices to the first view.

Drawings

The subject matter of this application admits of illustration by a drawing to

facilitate understanding of the invention. Applicant is required to furnish a drawing

under 37 CFR 1.81(c). Specifically, the newly amended claims do not have a drawing

associated with them, illustrating the first and second drawing layouts occurring in the

same window, and for purposes of clarifying the record, such a drawing is required.

No new matter may be introduced in the required drawing. Each drawing sheet

submitted after the filing date of an application must be labeled in the top margin as

either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d).

The drawings are objected to under 37 CFR 1.83(a). The drawings must show

every feature of the invention specified in the claims. Therefore, the first and second

drawing layouts occurring in the same window must be shown or the feature(s)

canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 7-11 and 29-46 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Specifically, examiner cannot find support in the specification for limitation that both the first and second layout appears in the same window (the newly added limitation). Applicant did not provide a notification to examiner as to where such support might be found in the specification, and the original specification was modified at the time of filing with 10 pages of amendments. Therefore, it is incumbent upon applicant in this case to point where support for this particular feature is found.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 7-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 recites the limitation "the selected views" in the third clause. There is insufficient antecedent basis for this limitation in the claim.

Claims 8-11 are rejected for not correcting the deficiencies of their parent claim(s).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating obviousness or nonobviousness.

**The rejection(s) of the parent claim(s) (independent and any intervening

dependent) as set forth below are automatically incorporated by reference in the

rejection of all dependent claim(s).

Claims 7-9, 29, 34-36, 39, and 42-43 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Hanratty in view of Suzuki (US 5428715 A) in view of Sakai et

al (US PGPub 20060106757 A1).

As to claim 7,

A computer-implemented method of providing for different arrangements of a plurality of

views of a three-dimensional model, the method comprising: (Preamble is not given

patentable weight, since it only recites a summary of the claim and/or an intended use,

and the process steps and/or apparatus components are capable of standing on their

own; see Rowe v. Dror, 112 F.3d 473, 42 USPQ2d 1550 (Fed. Cir. 1997), Pitney

Bowes, Inc. v. Hewlett-Packard Co., 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165

(Fed. Cir. 1999), and the like.)(Hanratty 1:10-35, 3:10-55)(Suzuki Figures 4-5, 7, and

the like)

-Displaying the plurality of views in a graphical user interface (GUI) window in an

arrangement representing a first computer-aided design drawing layout; (Suzuki Figures

4-5, 7, etc, illustrate a system which is conventionally known in the art for CAD, that is, a

system that shows the three-dimensional view of an object in the upper right window –

box (c) (7:13-23), and boxes (a) and (b) represent orthographic, e.g. projection, views of

said object from various axes (7:35-45) (in this case, Y and Z axes))(Sakai Figure 22)

-Selecting for inclusion in a second drawing layout at least a first and a second view

from the plurality of views; and (Suzuki 3:54-4:15, where the user clearly selects a first

and second two-dimensional projection view. This clearly suggests that the user can

select views, since one of the problems that the patent addresses from the prior art is

that existing systems do **not** allow the selective display of orthogonal two-dimensional

figures as such (3:24-58). Further, in Figure 3 the number of the sets of the three-

dimensional and two-dimensional views can be chosen by the user – see steps 301-

304, particularly where the number is chosen by the user (6:33-48, 6:63-67, 7:20-44),

therefore the user can select for a layout at least first and second views from a plurality

of views, where first and second views could be any of the plurality of views, as in

Figures 4-5 and 7, the chosen views could be the 3D view and any one of the 2D

views)(Sakai clearly teaches that the user selects first window that contains various

views – Figure 22, [0306, 0311-0313]; the user may select a plurality of viewing

functions to allow the user to change or alter the view in the window – that is, for a

specific 2D, flat, orthographic view. Also, Sakai teaches that 'multiple windows viewing

feature may be provided to permit the user to selectively display a worm view and/or a

bird's eye view of the orthographic views in multiple windows.' [0312]. In [0309], the

solid viewing mode shown in Figure 19 is specified to allow the user to have multiple

windows of the same parts, including the worm view, the bird's eye view, where these

are all found in a window. In [0311], it is stated that the same techniques applied to the

two-dimensional flat views as to the solid viewing mode. Clearly, the multiple windows

layout is illustrated in Figure 22.)

-Forming a second drawing layout comprising the selected views in the first layout

wherein said second drawing layout is formed by applying a transformation matrix to

views represented in the first layout to automatically reposition the views for display in

the second drawing layout wherein, (Hanratty clearly shows in Fig. 3 that multiple two-

dimensional views are shown on the screen simultaneously via software are well known

in the art. In 6:10-45, it is taught clearly that the user may organize the views in the

view set manually, or the system can do it automatically. This clearly establishes that

the user can configure the overall view set in one way or the other, and by moving views

around. As stated before, Hanratty clearly teaches that the system can perform that

task automatically, and applicant can find the relevant analysis under *In re Venner* as to

why automating that step does not cause a significant difference from the prior art, and

why the instant claim fails the tests under that case. Hanratty further teaches in 23:50-

24:15 and 25:17-47 that the system applies transformation matrices to views and

rotations)(Suzuki clearly teaches that the various views can be arranged in any manner

of ways, where each can be freely moved, resized, etc, by the operator as desired

(10:44-55). The user can therefore change the two-dimensional views as required –

see 11:53-64.)(Sakai – see above, the user can select various desired views; see for

example Figures 17 and 18, where it is specified that simultaneous dual representations

of 2D flat and 3D views are available, and the view model attributes (solid, wire frame,

2D flat, orthographic) are available to any of the views; Sakai also can perform

extraction of regions from a larger view of a drawing, such that views are automatically

created and extraneous material, such as text and dimensions, are removed (see

Figures 14B and 14C). Finally, Sakai is capable of generating views that have had a

transformation applied to them, (e.g. perspective).)

> -In the second drawing layout, the first view and the second view are shown in a
>
> different positions with respect to each other than in the first drawing layout; and
>
> (Hanratty teaches that positioning of multiple views can be performed
>
> automatically within a view set (layout); Suzuki clearly illustrates that the system
>
> automatically lays out the selected views; Sakai clearly shows that the system
>
> automatically lays out the views if desired. The user can also perform such
>
> layouts)
>
> -The first and second drawing layouts appear in one of the first GUI window or a
>
> second GUI window. (Hanratty displays multiple view sets in one window, as

discussed above; Sakai and Suzuki both show multiple views of an object in both

2D and 3D modes. Sakai allows the user to specify perspective (worm's eye,

bird's eye) views of various original views. Clearly, all of the references show

that the views – rearranged or not – are shown in a single window as specified

above)

Reference Hanratty clearly teaches some of the limitations – see the rest of the

paragraph for details – but does not explicitly teach selecting specific views,

transforming multiple views automatically in the manner suggested by the instant claim,

or having them transformed into a second layout.   Clearly, as set forth above, in Fig. 3

Hanratty teaches the display of a plurality of views of a drawing, and that the software

will automatically select the plan view as the first view set forth above. Then the user

can manually select other desired view(s) or have the software perform that tasking, as

set forth above. Clearly, in Fig. 3 various views are shown arranged around the plan

view, as the above-cited sections of Hanratty clearly suggest that they would be.

Additionally, there is a 1:1 correspondence between Fig. 5 of applicant's drawings and

Fig. 3 of Hanratty – same number of views presented, etc.). It would have been obvious

to one of ordinary skill in the art at the time the invention was made to modify the

system of Hanratty to allow the user to move the multiple views of the object in one

window around, as Hanratty clearly establishes that the views can be presented in

multiple windows (6:8-40) or in one window (Fig. 3), but this modification would be

implicit.

All three references are analogous art that all describe CAD systems and design. They share common classifications, amongst other details.

The Sakai reference provides the disclosure that other layouts can be generated; for example, when discussing the 'multiple windows' option of a view, where various versions can be selected, and/or the 'before' and 'after' versions of a view with a transform applied can be shown (e.g. original view and view with perspective applied to it). Such other layouts can constitute other 'view sets' as per the teachings of the Suzuki reference, since the user can clearly choose which views are present in any given layout. The Suzuki reference provides the teachings of selecting specific, desired views (as does Sakai, as disclosed above).

Hanratty, Suzuki, and Sakai all teach to varying degrees the use of automatic means to organize windows. The user can also perform such layout changes if desired, which is where *Venner* is applied, as above. However, the point of the matter is that whenever a new window is added (Sakai is referenced below), the original views **must** be repositioned – see for example, Figure 19, where only the three-dimensional view of the object is shown. When such 2D orthographic representations are added (Figure 22), clearly the view in Figure 19 is rescaled. **Any change in size, position, rotational orientation, or the like constitutes a transformation** where matrices are clearly used to perform such transitions, as both taught by Hanratty and as is well known in the art (Examiner takes Official Notice of the facts that transformation matrices are in fact well known, and constitute the transforms above. Examiner further takes Official Notice that automatic positioning constitutes transforms as above.)

The references therefore collectively teach all the limitations of the instant claim; wherein it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Suzuki, Hanratty, and Sakai for the following reasons:

1. Hanratty does not teach allowing the user to select the desired views that would constitute a view set. This is clearly non-optimal, as is discussed in the Suzuki reference with respect to Figures 4-5, 7, and the like, as well as in Sakai with respect to Figures 18-22 and [0305-0315], where such selection is beneficial to the user in a number of ways at the recited locations above.

2. Hanratty fails to explicitly teach automatically arranging views within a window and resizing them, although it does teach that the system can automatically segment and scale the various views within a 'view set' (6:1-52), which constitute a layout in the terms of the instant application. The Sakai and Suzuki references clearly show that such arrangement facilitates understanding by the user, and prevents the user from needlessly having to manipulate such windows, although the user can do so if desired, and the system can compensate to maintain visibility of other windows if such occurs.

3. Hanratty fails to teach showing another layout in the same window. Sakai clearly teaches this limitation, with the altered views as discussed above, where this is beneficial to the user by allowing the user to see different views of the drawings that allow the effective communication of three-dimensional views of how various components fit together, where such views are beneficial to the user [0300-0317 Sakai], among other places.

Each of the above deficiencies is noted in the secondary references and the
motivation for each is found therein. The combination of the above references would
not change the fundamental method of operation of any of the references, and would
display enhanced functionality with respect to each of the above features as already
discussed.

As to claims 29 and 43 [the rejection to claim 7 is incorporated by reference in its
entirety][computer-readable medium causing a computer to execute a set of instructions
that is identical to the computer-implemented method is subject to the identical
rejection, since for the computer to implement the method, there must *prima facie* exist
instructions in a stored form for causing the computer to do so]:

Firstly, the preamble differs from that of claim 7. However, as noted in the above
citations of case law with respect to claim 7, the preambles are only recitations of
intended use and/or a summary of the claims. They are not given patentable weight
and can be set aside. Secondly, a computer-implemented method must and will display
such views and layouts to the user, where clearly they are rendered to display on the
display device; therefore, any method for providing for different arrangements of views
will prima facie render such views.

Secondly, first clause recites 'rendering' versus 'displaying'. Applicant has not
specifically redefined these terms in the instant specification in the manner required by
Process Control vs. HydReclaim and the like, where such redefinition must be explicit.
Although the claims are read in light of the specification, limitations from the

specification (e.g. given embodiments) are **not** read into the claims (*In re Van Geuns*).

Therefore, they are synonymous in the art and will be treated similarly here.

The inclusion clause is the same, except the window is recited in the first clause

of claim 7 rather than the third, which is why it mentioned there. That causes absolutely

no change in claim scope.

'Creating' and 'forming' drawing layouts are the same act; there is no difference

between those synonymous terms, as is well known in the art, and this interpretation is

backed by a careful reading of applicant's specification. Both clauses automatically

form and reposition such objects via transformation matrices – no difference in scope

there.

Clearly, both claims further are displayed in the same window. Claim 29 requires

simultaneous display, which is covered by the Sakai reference (see Figures 17-22 as

exemplars). Clearly, windows are moved and resized when views are added and/or

subtracted, and only one window is ever provided in any of those references for such

transformations to occur within in the first place. Clearly, such windows are

automatically repositioned; **see** the extensive discussion in the rejection to claim 7

above.

As to claim 39, this is a system claim implementing the method of claim 29, the

rejection to which is incorporated by reference in its entirety.

The added material / clause is as follows:

-A computer processing system comprising a processor, an input device, a graphical

user interface output device, and a storage device comprising stored instructions

configuring the processor to: [insert method of claim 29 here].

Hanratty Figure 2 shows a computer containing a processor (CPU 202), an input

device (keyboard 220) [Suzuki provides keyboard 1, mouse 2, and/or tablet 3 as input

devices in Figure 10 (1:5-2:35)], a graphical user output device (monitor 218), and a

storage device comprising stored instructions (e.g. hard disk drive 214 and/or diskette

drive 212, either of which comprises media containing a stored computer program that

causes the computer to execute the method as above.

The rejection of claim 29 covers the additional limitations and has been

incorporated.

As to claims 8, 34, and 41,

A method, according to claim 7, further comprising automatically aligning the first view

and the second view in accordance with a conventional drafting standard by snapping at

least one of the first view and the second view into a position as prescribed by the

conventional drafting standard.

Hanratty clearly teaches the use of drafting standards in aligning views in 13:22-

14:53, particularly emphasizing 13:35-45 where the positioning of views is said to be

specified by the standard, and to be done automatically. This clearly proves that the

views in Fig. 3 are automatically aligned and positioned as set forth above. It would

have been obvious to one of ordinary skill in the art at the time the invention was made

to modify it such that any elements of the above mentioned claim that are not present

would be, but Examiner believes that all elements as recited above are indeed met by

Hanratty, as cited immediately above. Further, existing CAD standards, such as the

ANSI ones cited by Hanratty, would clearly be viewed as conventional since they are in

fact well established in the industry. The recitation of the second drawing layout is trivial

because if such techniques were applied to the first layout, it would be obvious to apply

them to the second.

As to claim 34 specifically, the only difference is the use of the word

'conventional' as set forth in claim 8. This difference is trivial, and set forth above in the

rejection to claim 8 under both art and under 35 U.S.C. 112, second paragraph, is

meaningless in this context.

As to claim 9,

A method, according to claim 8, wherein aligning the first view and the second view

utilizes at least one transformation matrix for at least one of the first view and the

second view.

Reference Hanratty teaches the above limitations, and does explicitly teach a

"transformation matrix". Specifically, Hanratty teaches that his invention takes two-

dimensional views and creates a three-dimensional object from it (3:10-55), and that

'transforming' the three-dimensional objects by operations such as rotation (23:50-

24:40) generates new views of such objects. In any case, the view clearly is referred to

as having a matrix applied to it (23:63-24:16, specifically), where the view could

obviously be the 'first' or 'second' view referred to in the claim. In any case this

limitation is further discussed in the rejection of claims 7, 29, and 39 above, the

rejections to which are incorporated by reference. Further, Sakai and Suzuki both align

such matrices using transformations, since as discussed above, the transformation

matrix is *prima facie* required when windows and/or views are resized, repositioned, and

the like, which clearly occurs in Sakai (and Suzuki, which is one of the conventional

CAD systems discussed in Hanratty 1:5-5:8).

As to claims 35, 36, and 42, Hanratty specifically states (13:20-60, particularly

lines 35-42) that positioning of views is specified by an implemented ANSI standard that

Hanratty utilizes in his specification and application. Since only the primary reference is

utilized, no separate motivation or combination is required and that from the rejection to

the parent claim is herein incorporated by reference.

Claims 10-11 and 32-33 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Hanratty, Suzuki, and Sakai as applied to claim 9 above, and further

in view of Fortenbery et al (US 6,198,487 B1)('Fortenbery').

As to claim 10,

A method, according to claim 9, wherein the transformation matrix for one of the first

view and the second view performs a mapping between relative coordinates and an

absolute coordinate system.

Reference Hanratty teaches the limitations of this claim implicitly but not

expressly, in that multiple two-dimensional views (see Fig. 3) exist, and are mapped to a

three-dimensional larger object, as set forth in the rejections to the claims above. This

establishes a mapping of coordinates systems, but the translation between relative and

absolute coordinates is not explicit. Reference Fortenbery teaches a system for

converting two-dimensional views of an object on a computer monitor in a first software

application to three-dimensional absolute coordinates in a three-dimensional model, and

then the transference of that model to the coordinate system of a second application,

such that relative to absolute coordinate transforms occur (12:5-67 teaches that two-

dimensional models are converted to "object container coordinates" that are then

converted to "a server world coordinate" system)(Fortenbery 10:36-67 clearly illustrates

relative and absolute coordinate sets also as set forth above). Clearly, Fortenbery deals

with two-dimensional views of three-dimensional objects, so it is analogous art and is

directed to the same problem solving area as the Hanratty reference. Furthermore, as

cited above, Hanratty teaches the mapping of two-dimensional coordinates to a three-

dimensional object, so it would have been obvious to one of ordinary skill in the art at

the time the invention was made to combine the CAD and view manipulations of

Hanratty with the coordinate conversion system of Fortenbery to allow the CAD system

to take in objects from other programs and model them, as well as more efficiently

process its own views during the view conversion process. Motivation for combination

of Hanratty, Suzuki, and Sakai is taken from the rejection to claim 7 above.

As to claim 11,

A method, according to claim 7, wherein selecting one of the first view and the second

view comprises positioning a cursor on the one of the views being selected and clicking

a mouse button.

References Hanratty, Suzuki, and Sakai do not explicitly teach this limitation.

Reference Fortenbery clearly teaches a computer system with a mouse (element 64 in

Fig. 7), and that the system recognizes mouse clicks and selects an active view (20:18-

64). Further, the use of a mouse click to select an object is well known in the art and is

a fundamental of graphical user interface operating systems, such as that of the

Microsoft® Windows™, where said OS is the platform on which the program of

Fortenbery runs (3:5-65). Therefore, it would have been obvious to one of ordinary skill

in the art at the time the invention was made to modify the system of Hanratty and

combine the CAD and view manipulations of Hanratty with the coordinate conversion

system of Fortenbery to allow the CAD system to allow the user to have standard

functionality found in a GUI OS environment, and further to allow the user to more

efficiently manipulate two- and three-dimensional objects and views as set forth in

Fortenbery generally.

As to claims 32-33,

A method, according to claim 29, wherein selecting the first view comprises dragging

the first view to a new location and dropping the first view at the new location.

As set forth in the above rejection to claim 11, references Hanratty, Suzuki, and

Sakai do not expressly teach this limitation. Reference Fortenbery teaches this

limitation as an obvious modification; the rejection to claim 11 is herein expressly

incorporated by reference. Microsoft® Windows™ operating system, as specified

above, has certain well-known and inherent functions.

One of these is so-called 'drag-and-drop' capabilities, where a user can, for example, click on an icon or object in a window (or the desktop) and drag it to another window or location, and after releasing the mouse button, the object will be moved to the new location. Further, reference Hanratty specifies that the views can be presented in multiple windows (6:8-40) or in one window (Fig. 3), which means that in light of Fig. 3 and the fact that the views are independent of each other, while they can be automatically positioned in the main window (see rejection to claim 8). ** Examiner is taking Official Notice on the 'drag-and-drop' functionality of Microsoft® Windows™ as specified above. ** In light of the above facts, therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Hanratty and combine the CAD and view manipulations of Hanratty with the coordinate conversion system of Fortenbery to allow the CAD system to allow the user to have standard functionality found in a GUI OS environment, and further to allow the user to more efficiently manipulate two- and three-dimensional objects and views as set forth in Fortenbery generally. Applicant has not addressed this taking of Official Notice, which means that **applicant has conceded this point and it is no longer subject to review**. Applicant is reminded of that fact.

As to claims 32 and 33, the only difference in the claim language is whether the first or second view is dragged and dropped to a new location. That variation is a trivially obvious modification, as it would be obvious to allow the user to choose which window or view was being dragged and dropped.

Claims 30, 37, and 40 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Hanratty, Suzuki, and Sakai as applied to claims 7 and 29 above,

and further in view of Berkwald et al (US 6,356,285 B1)('Berkwald').

As to claims 30, 37, and 40,

A method, according to claim 29, further comprising hiding unselected views.

References Hanratty, Suzuki, and Sakai do not explicitly teach this claim.

Reference Berkwald teaches this claim, specifically wherein Berkwald teaches the use

of a 'VIEW' menu with various options for hiding files (19:35-60), while it specifically

teaches that the user can choose to hide selected or unselected files (19:60-20:6), e.g.

the user can select two files or views, and then have the others be hidden. This

technique clearly is applicable to situations where software is showing multiple views,

particularly if, as set forth in the rejections to claims 7 and 29, they are in multiple

windows. The references are directed to the same problem solving area, as Berkwald

inter alia specifies that the invention is specifically directing to a system for analyzing

and displaying information about characteristic-dependent portions of an information

processing system (1:6-15). As such, it would have been obvious to one having

ordinary skill in the art at the time the invention was made to combine the multiple views

and windows of Hanratty, Suzuki, and Sakai with the window-hiding capabilities of

Berkwald as set forth above, and because such window-hiding techniques are well-

known in the art. Further, the recitation "the second drawing layout" is unimportant

because as set forth previously, given that the method was previously applied to the first

drawing layout (e.g. before applicant amended), it would be obvious that such

limitations could (and should) be applied to both layouts, which would clearly (a) be a

consistent interpretation of the claim language, (b) would be suitable under 'comprising'

language, and (c) would be appropriate for internal consistency within the program (e.g.

apply the same limitation to all windows or layouts within a program).

Claim 38 is rejected under 35 U.S.C. 103(a) as unpatentable over Hanratty,

Suzuki, and Sakai as applied to claim 7 above, and further in view of Rosenberg et al

(US 6,078,308).

Hanratty, Suzuki, and Sakai do not expressly teach this limitation. However, it is

well known in the art that application programs and operating systems like Microsoft™

Windows™ have scroll bars for scrolling documents, and Rosenberg is brought in

because it is directed to the same problem solving area (that of navigating through a

GUI associated with a CAD program), and examiner will not take Official Notice of

another fact in a Final Rejection on a new rejection under 35 U.S.C. 103(a), so it is

merely presented as evidence (see Rosenberg 15:20-45), and the additional haptic

interface capabilities of Rosenberg would allow easier navigation through a CAD

program for example (see for example Rosenberg 15:36-16:35), which provides

motivation that proves that it would have been obvious to one of ordinary skill in the art

at the time the invention was made to combine the systems of Hanratty, Suzuki, and

Sakai with that of Rosenberg as set forth above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure: US 6,078,308 A to Rosenberg et al, US 5,544,301 A to Orton et

al, and US 5,555,369 A to Menendez et al.

Applicant is strongly encouraged to review the contents of such references cited

above.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Eric Woods whose telephone number is 571-272-7775.

The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Ulka Chauhan can be reached on 571-272-7782. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

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Eric Woods   June 21, 2006

ULKA CHAUHAN
SUPERVISORY PATENT EXAMINER